DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

By R. HANSON WEIGHTMAN, Meteorologist.

Cyclones.—The month was unusual on account of the number of secondary developments, of which there were 10 within the confines of the United States and of these 5 first appeared over the Rocky Mountain and Plateau Regions. The table which follows gives the number of LOWS by types.

Lows.

	Alberta.	North Pacific.	South Pacific.	Northern Rocky Mountain.	Colorado.	Texas.	East Gulf.	South Atlantic.	Central.	Total.
March, 1920	4.0	3.0	1.0	2.0	3.0	1.0	1.0	1.0	2.0	18.0
Average number, 1892–1912	3.6	2.1	1.1	0.3	1.9	1.3	0.4	0.3	0.7	11.8

Anticyclones.—The number of HIGHS was slightly above the average and anticyclones were fairly well distributed with regard to type as indicated in the table below.

Highs.

	North Pacific.	South Pacific.	Alberta.	Plateau and Rocky Mountain region.	Hudson Bay.	Total.
March, 1920	1.0	1.0	7.0	1.0	0.0	10.0
Average number, 1892–1912	0.9	0.7	5.6	0.9	0.5	8.5

THE WEATHER ELEMENTS.

By P. C. DAY, Climatologist and Chief of Division.

[Weather Bureau, Washington, May 1, 1920.]

GENERAL SUMMARY.

March, 1920, fully maintained its reputation as a stormy month over many portions of the country, the pressure, temperature, wind, rain, and other phenomena contributing at some time in making the month as a whole one of marked extremes.

Chief among the notable weather events of the month may be mentioned the following:

Severe cold over the southeastern States at the beginning of the month, when freezing temperatures extended into the central portions of the Florida Peninsula, and killing frosts, locally, to near the southern extremity. The temperatures over the extreme southern portions of the State were as low as, or lower than ever before recorded in March, and much damage was sustained by the early spring trucking interests.

The severe wind and snow storms of the 5th and 6th over the northeastern States, particularly in New England, where the snowfall was in many cases the heaviest ever recorded in March. The storm was comparable with the great "blizzard" [1] of March, 1888, and in some sections it is reported as being even more severe than that. High winds drifted the snow to such an extent as to blockade traffic completely, which in places was not resumed for a week or more.

[1] See note on the term "blizzard," MONTHLY WEATHER REVIEW, February, 1920, 48: 82.

The severe cold that overspread the Rocky Mountains and thence eastward and southeastward to the Atlantic and Gulf States from the 6th to 8th brought the lowest temperatures of the month over those regions, and in numerous instances the lowest temperatures ever reported in March. During this period temperatures fell to 40°, or more, below zero in many northern districts, and below-zero temperatures were reported at exposed points as far south as Oklahoma, Tennessee, and western North Carolina. Over the Florida Peninsula, however, the temperatures were not as low as those reported at the beginning of the month.

On the 15th and 16th one of the severest storms ever experienced developed over the upper Missouri Valley and moved to the northward of Lake Superior. The barometric pressure over a large area, including the Dakotas and portions of adjoining States reached lower points than ever before known in that region. Snow fell continuously in portions of the storm area for nearly two days, and high northwest winds drifted it to such an extent as to interfere greatly with traffic. In portions of North Dakota it is described as one of the worst blizzards of record. Five lives were lost due to freezing, and stock, unprotected and already weak from the long cold winter and the frequent lack of food, suffered severely, and much loss was sustained.

On the night of the 22d one of the most brilliant and extensive auroras ever witnessed was observed from all States, particularly in the central and eastern districts, where the absence of clouds permitted unusual opportunity for its wide display. Cloudy weather prevented its general observance in many districts west of the Mississippi River. (A detailed account of this aurora will be published in an early issue of this REVIEW.)

On the afternoon of the 28th, in the southeast quadrant of an area of low pressure moving from the middle Plains region toward the Great Lakes, a series of 9 tornadoes developed in the vicinity of the southern end of Lake Michigan, particularly near Chicago, where 45 lives were lost and several million dollars worth of property was destroyed. Another series of severe storms, some with tornadic characteristics, occurred about the same time in portions of Georgia and surrounding States, where 43 lives were lost and considerable property was destroyed. Full reports of these storms will be found in the April issue of this REVIEW.

PRESSURE AND WINDS.

The pressure was frequently low over the western and northern districts, and it remained high for considerable periods in the Southeastern States. As a result, the averages for the month were below normal over practically all portions of the United States west of the Mississippi and north of the Ohio, and over Canada as well, as far as disclosed by observations. The negative departures were unusually large over the middle Mississippi Valley and central Plains regions and thence northward into Canada.

The pressure distribution favored frequent high winds in many parts of the country, and over portions of the Plains region and Mississippi Valley the month as a whole had the greatest wind movement ever recorded. The winds were particularly high over northeastern districts on the 5th and 6th, and over the northern Plains region and upper Mississippi Valley on the 15th and 16th. On the 28th high winds prevailed locally from the middle Mississippi Valley to the Great Lakes and in portions of